

ACC NR: AT6031504

fully activated and neutron activity was recorded with a corona-type neutron counter placed in one of the vertical tubes of the reflector. Effective cross sections of absorption were measured by decreasing the hard neutrons spectrum with an internal thermal column which almost doubled the flow of thermal neutrons and decreased the flow of fast neutrons by one order of magnitude. The effective cross sections of cobalt chlorine, manganese, and copper were measured with satisfactory accuracy. Reactivity is proportional to the square of neutron flow and can be roughly calculated from existing formulas. The author expresses his gratitude to Senior Operator Nikolay St. B'chvarov for help given during oscillator measurements and to operators Nikolay V. Nikolov and Atanas L. Mladenov for assistance given during reactivity measurements. Orig. art. has: 4 figures, 2 tables, and 8 formulas.

SUB CODE: 18/ SUBM DATE: 05Apr65/ ORIG REF: 002/ OTH REF: 003/ SOV REF: 003

Card 2/2

UZUNOV, G.; IORDANOV, V.; KHRISTOV, V.

Distribution of radioactive cobalt ( $\text{Co}^{60}$ ) in the organism under conditions of experimentally induced epileptoid seizures. *Fiziol. zhur.* 45 no.11:1304-1307 N '59. (MIRA 13:5)

1. From the department of psychiatry, Higher Medical Institute and the department of atomic physics, State University, Sofia.  
(COBALT metab.)  
(CONVULSIONS exper.)

TANCHEV, I.; KHRISTOV, V.

A case of chronic colitis induced by *Balantidium coli*. *Suvrem.med.*  
Sofia no.9/10:156-158 '59.

1. Iz Okruzhnata bolnitsa "Khristo Botev" - Vratsa. Glaven lekar:  
M. Peev.

(BALANTIDIASIS case reports)

KHRISTOV, V.

"Fattening Calves; Simmenthal Mongrels."

p. 33 (Kooprativno Zemedelie, No. 7 July 1958, Sofia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 11,  
Nov. 1958

KHRISTOV, V. . , akademik

Quality of estimates obtained by the method of least squares. Izv.  
vys. ucheb. zav.; geod. i aerof. no.2:43-60 '60. (MIRA 13:6)

1. Narodnaya Respublika Bolgarii, Bolgarskaya Akademiya nauk.  
(Least squares)

L 18459-63

EPF(n)-2/EWT(m)/BDS

AFFTC/ASD/AFWL/SSD Pu-4  
B/2503/62/010/002/0037/0045

JXT(IJP)

ACCESSION NR: AT3002409

AUTHOR: Khristov, V.; Damyantov, D.; and B'chvarov, N.

TITLE: Certain results from the study of corona counters of neutrons and their use in reactor measurements

SOURCE: B'lgarska akademiya na naukite. Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB, v. 10, no. 2, 1962, 37-45

TOPIC TAGS: corona counter, corona, neutron counter, neutron, reactor, reactor measurement, IRT-1000

ABSTRACT: Authors have constructed several types of corona counters with electrodes of different shapes (shown in Fig. 1 of Enclosure 1), filled with pure argon. Working characteristics of counters were studied with the help of the apparatus, shown in block diagram in Fig. 2 of Enclosure 2. It is shown that a stable corona and a good working plateau may be obtained by the appropriate selection of charge resistances and argon pressure. Empirical correlations have been established between the corona and the working characteristics of the counter. The advantages of the corona counter has enabled the authors to use it as a

Card 1/42

L 18459-63

· ACCESSION NR: AT3002409

2  
convenient and stable detector in construction an all-wave neutron counter with effectiveness for the whole reactor spectrum. A long cylindrical corona counter was used by the authors in measuring the efficacy of the biological shielding and the gate valves of the IRT-1000 in Sofia. "The authors express their gratitude to Stefan Ridzhikov, manager of the glass-blowing workshop, for his valuable technical assistance." Orig. art. has 12 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 04 Jun 63

ENCL: 02

SUB CODE: PH

NO REF SOV: 002

OTHER: 000

Card 2/102

KHRISTOV, V.; STANOLOV, A.; BUCHVAROV, N.; ROMANOV, G.

An automatically controlled diffusion Wilson chamber operating under conditions of intensive irradiation of the reactor neutron beams. Fiz mat spisanie BAN 7 no.1:30-38 '64.

BOCHVAROV, N., inzh. (Bolgariya); KHRISTOV, V., inzh. (Bolgariya)

Atomic reactor in Bulgaria. Tekh.mol. 28 no.9:30 '60.

(MIRA 13:10)

(Bulgaria—Nuclear reactors)

KHREISTOV, V.; STANOLOV, A.

Possibilities of operating the Wilson diffusion chamber under intensive irradiation from reactor neutron beams. Doklady BAN 17 no.6:531-534 '64.

1. Predstavleno akad. G. Hadzhakovym.

S/058/63/000/003/024/104  
A062/A101

AUTHORS: Khristov, V., Sakalyan, K., Bychvarov, N.

TITLE: Installation for automatic recording of the activity of wires being activated in a reactor

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 41, abstract 3V291  
("Dokl. Bolg. AN", 1962, v. 15, no. 3, 249 - 252, summary in English)

TEXT: The article describes an automatic installation that permits to carry out, fast and with a good accuracy, a continuous registration and recording of the activity of irradiated wires. The installation comprises a mechanical arrangement for fixing and displacing the wire and a recording device including a photomultiplier FEU-19M with a crystal NaI(Tl) under a lead shield, a pulse amplifier, an intensimeter and a recorder.

A. Kamayev

[Abstracter's note: Complete translation]

Card 1/1

ACCESSION NR: AT4017783

B/2503/63/011/01-/0201/0220

AUTHOR: Khristov, V.; Damyanov, D.; Stanolov, A.

TITLE: Neutron flux and radiation field of the IRT-1000 reactor in Sofia

SOURCE: B'lgarska Akademiya na Naukite. Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB (News of the Institute of Physics and the Atomic Energy Scientific Research Foundation), v. 11, no. 1-2, 1963, 201-220

TOPIC TAGS: IRT-1000, nuclear reactor, reactor, neutron, flux, thermal neutron, resonance neutron, fast neutron, gamma radiation, Grey chamber

ABSTRACT: Adduced are the results of the absolute measurement of thermal, resonance and fast ( $E > 1$  MeV) neutron currents in the active zone and in experimental channels of the IRT-1000 reactor in Sofia. Measurements were made on irradiated plates of gold and indium, and for fast neutrons by means of threshold detectors ( $^{32}\text{S}$ ,  $^{31}\text{P}$ ,  $^{24}\text{Mg}$ ,  $^{24}\text{Na}$ ,  $^{27}\text{Al}$ ) by the 2- $\pi$  method, using apparatus calibrated according to a 4- $\pi$  device constructed by the coauthors, yielding accuracy in excess of 5%. Control measurements were made by the method of beta-gamma coincidences, with apparatus consisting of scintillation counter (gamma channel) with MST-17 (beta channel) end-type counter. Consistently good results were obtained on repetition.

Card 1/87

ACCESSION NR: AT4017783

Absolute and relative measurements of doses of mixed neutron-gamma field were made at different points of the reactor by means of Grey chambers designed and constructed by the coauthors (polystyrene with acetylene and graphite with argon), which measured the absolute doses of the gamma field with the reactor in a state of rest following previous operation under various regimes. Recorded by means of an automatic recording device was the distribution of slow neutrons in the active zone of the reactor along the irradiated copper wires in it, and determination was made of the coefficient of volume variability of the distribution  $K_V = 0.47$ . Likewise made were relative measurements of the distribution of  $F_{th}$ ,  $F_{res}$ ,  $F_f$  and  $D_\gamma$  in several experimental channels of the reactor, and these will be further extended in the next stage when the spectrum of fast neutrons and the gamma field at all points important for the experiments are made. Results of the experiments are summarized in Tables 1 and 2 of the Enclosure. A number of devices were constructed, making it possible to carry on successful radiobiological investigations. The results of the measurements are necessary in practice for groups of experimenters using the reactor and have, as well, theoretical interest for certain computations in the domain of reactor physics. "Throughout the entire period of time that we were conducting measurements, aid and cooperation were extended to us by a number of comrades from the reactor collective, and to them we express our gratitude." Orig.

Card 2/5<sup>b</sup>

ACCESSION NR: AT4017783

art. has: 14 figures, 16 equations, and 5 tables.

ASSOCIATION: none.

SUBMITTED: 00

DATE ACQ: 04Mar64

ENCL: 02

SUB CODE: NS, PH

NO REF SOV: 007

OTHER: 010

Card 3/37

L 41790-65 EWT(m)/EPF(c)/EPF(n)-2/ENG(m)/EPR Pr-4/PS-4/Pu-4  
 ACCESSION NR: AT5004298 B/2503/64/012/01-/0127/0136

AUTHOR: Khristov, V., Buchvarov, N., (Bychvarov, N.); Markov, A.

TITLE: Investigation of some kinetic characteristics of the IRT-1000 reactor at Sofia by the reactor oscillator method

SOURCE: Bulgarska akademiya na naukite. Fizicheski institut. Izvestiya na. Fizicheskiya institut s ANEB, v. 12, no. 1/2, 1964, 127-136

TOPIC TAGS: nuclear reactor, neutron, delayed neutron, fission neutron, ionization chamber, reactor oscillator method

ABSTRACT: The reactor oscillator method has been used to determine the effective participation of delayed neutrons  $\beta^*$  and the mean lifetime  $\lambda$  of instantaneous fission neutrons in the active zone (see Figures 1 and 2 of the Enclosure) of the IRT-1000 reactor at Sofia (Bulgaria). An improved oscillating method proposed by Polish specialists was used (Bouzik, J., Dabek, W., Dobrowsky, C. et. al., Nukleonika, Vol. VI, No. 11, 1961). The resulting signal from the oscillation was detected using a small, hollow, compensated, coaxial ionization chamber. This made it possible to oscillate a sample in the same channel in the immediate vicinity of the detector itself (above and below it), thereby improving the sensitivity of the

Card 1/5

L 41790-65

ACCESSION NR: AT5004298

measurement method. The experimentally determined values  $\beta^*$  and  $\lambda$  were used in computing and constructing amplitude curves and frequency-phase characteristics for the reactor (Fig. 3 of the Enclosure). Later, a corrected reaction curve was constructed. Orig. art. has: 9 formulas, 7 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 29Oct63

ENCL: 03

SUB CODE: NP

NO REF SOV: 004

OTHER: 002

Card 2/5

KHRISTOV, V.; DAMYANOV, D.; ROMANOV, G.

Portable transistor radiometer for neutrons operating with  
corona counters. Doklady BAN 16 no.7:693-696 '63.

1. Predstavleno otl. - korr. E.Dzhakovym.

L 22633-66  $E_{TO}(f)/E_{TF}(n)=2/E_{TO}(m)$  WW

ACC NR: AT6004203(N) SOURCE CODE: BU/2503/65/013/001/0003/0012

AUTHOR: Khristov, V.; Stanolov, A.

56  
BT1

ORG: none

19

TITLE: Neutron spectra of the reactor IRT-1000 in Sofia

SOURCE: Bulgarska akademiya na naukite. Fizicheski institut.  
Izvestiya na Fizicheskiya institut s ANEB, v. 13, no. 1, 1965, 5-12

TOPIC TAGS: neutron spectrum, nuclear reactor core, neutron detector, Fermi level, Maxwell distribution, neutron/IRT-1000 reactor

ABSTRACT: The effective neutron temperature of the reactor IRT-1000 in Sofia has been determined by two independent methods (the method of transmission and the method of reactivity). The value 375K has been obtained. The constant  $\lambda$  relating the spectrum of thermal neutrons with Maxwell distribution to the Fermi slowing-down spectrum has been determined. The results obtained by the method of two independent resonance detectors and that of the cadmium ratio are in good agreement. In the center of the pile core  $\lambda = 0.056$ .

2

Card 1/2

L 22633-66

ACC NR: AT6004203

The integral fast neutron spectrum in the energy interval from 2.7 to 12.18 MeV has been determined by means of 7 threshold detectors. Orig. art. has: 6 formulas, 3 figures and 1 table. [Based on author's abstract]

SUB CODE: 18,20/  
SOV REF : 004/

SUBM DATE: 05May64/      ORIG REF: 001/  
OTH REF: 005/

Card 2/2 *W/S*

KIRILLOV, Vasil

Research nuclear reactors. *Trizda Bulg* 13 no.5:1-12 2-0 '56.

1. Institute of Physics of the Bulgarian Academy of Sciences.

KHRISTOV, Vasil; STANOLOV, Angel

Diffusion camera under low pressure. Fiz mat spisanie BAN 4 no.4:  
263-270 '61.

KHIRSTOV, V., fizik; KHARALANOV, Kh., lekar

Atomic danger. Nauka i tekhn mladezh no.8:4-5 Ag '57.

KHRISTOV, VASIL Y

Ekskurziya iz Atomniya Tsentr by Vasil Y. Khristov i Nikolay St. Bucharov. Sofiya, "Narodna Prosveta", 1963.

152 p. illus.

1. Bulgarska Akademiya na Naukite, Sofia Fizicheski Institut. 2. Bulgarska Akademiya na Naukite, Sofia. Atomna Nauchnoeksperimentalna Baza. 3. Nuclear reactors - Bulgaria. 4. Bulgaria - Nuclear reactors. 1. Title. 11. Bucharov, Nikol-

KHRISTOV, Vlado, inzh.

Coreless drilling. Ratsionalizatsiia 13 no.9:22 '63.

Hristow, Wl. K.

Hristow, Wl. K. Über die Größen  $M$  und  $N$  in der Geodäsie. C. R. Acad. Bulgare Sci. Math. Nat. 2, no. 1: 61-64 (1949).

In higher geodesy, two important coordinate systems for an arbitrary surface are the system of geodesic coordinates, with  $ds^2 = n_P^2 dp^2 + dq^2$  and the system of geodesic polar coordinates, with  $ds^2 = d\sigma^2 + m_P^2 d\alpha^2$ , the subscript  $P$  referring to the origin, or pole, of coordinates. Let now  $A$  and  $B$  be any two points of a surface  $S$ , joined by a geodesic line  $L$ , and construct geodesic and geodesic polar coordinate systems relative to these points, with geodesic parallels normal to  $L$ . The author shows that we always have  $m_A(B) = m_B(A)$ , while in general we have  $n_A(B) \neq n_B(A)$ .

E. F. Beckenbach (Los Angeles, Calif.).

Source: Mathematical Reviews,

Vol. 12, No. 1

Handwritten signature or initials.

Handwritten number 3.

Book

Unclassified

Author: Khrstov, V.

Title: Geodetic Astronomy

Publishing Data: Sofia. Nauka i Izkustvo. 1950 290 p.

Available: E. European Access. List, May 1952

acb  
7/19/55 DC

KHRISTOV, VLADIMIR K.

Khristov, Vladimir K. Tablitsi za geodezicheski izchisleniia s mashina po elipsoida na F. N. Krasovski za shirochina ot 40° do 45° Sofiya, Nauka i izkustvo (1951) 60 p. Tables for geodetic calculations on the computation machine for the latitude of 40-45 degrees according to the ellipsoid of F. N. Krasovski

SO: Monthly List of East European Accessions, L. C. V ol. 3. No. 1. Jan '54 Uncl.

KHRISTOV, Vladimir K., professor, doktor chlen-korrespondent Bolgarskoy akademii nauk, laureat Dimitrovskoy premii.

[Notes on the construction of universal tables on F.N.Krasovskiy's ellipsoid for Gaussian co-ordinates] Zametki o sostavlenii mirovykh tablits na ellipsoide F.N.Krasovskogo dlia gaussovykh koordinat. Sofiia, 1952. 38 p.

(MLBA 6:7)

(Coordinates)

KHRISTOV, Vladimir K., professor, doktor, chlen korrespondent, laureat Dimitrovskoy premii.

[Transformation of stereographic coordinates into Gauss coordinates] Transformatsiia stereograficheskikh koordinat v gaussovye koordinaty. Sofia, 1952. 48 p. (MLRA 6:8)

1. Bolgarskaya Akademiya nauk.

(Coordinates)

KHRISTOV, V. K.

"The Gaussian and Geographic Coordinates on the Ellipsoid of Krasovskiy,"  
published in German, Berlin, 1955. 254 pages.

Translation No.607, 7 Nov 56

2  
 Vristow, Wladimir K. Tafeln zur Maschinenrechnung der Gauss'schen Koordinaten, der Meridiankonvergenz und des Massstabes aus den geographischen Koordinaten auf dem Ellipsoid von F. N. Krassowsky für alle Breiten. Bulg. Akad. Nauk. Trudove Central. Lab. Geod. 1956, 228 pp. (Russian, Bulgarian and German text)

The author's book, Die Gauss'schen und geographischen Koordinaten auf dem Ellipsoid von Krassowsky [Verlag Technik, Berlin, 1955; MR 17, 1236], gave a comprehensive theoretical account of the development of the Transverse Mercator (Gauss) projection. These tables can be considered as a valuable practical addition to the book, by presenting means for the numerical computation of grid coordinates, meridian convergence, and scale factor. The geodetic reference surface employed is the Krassovsky ellipsoid. It is this which makes these tables unique, since similar tables to the same order of accuracy have been previously published by the United States Army Map Service (AMS) for a number of other geodetic reference ellipsoids.

Formulas for the computations are of the form (\*)  $\sum a_i(\phi)l^i$ , where  $\phi$  is the geographic latitude, and  $l$  is a suitably scaled difference of longitude. The tables consist of listings of  $a_i$  for  $\phi=0^\circ(1')90^\circ$ . (The AMS tables are limited to  $\phi=0^\circ(1')80^\circ$ .) These yield an accuracy of  $10^{-8}$  meter for grid coordinates,  $10^{-8}$  second of arc for meridian convergence, and 1 part in  $10^8$  for the scale factor.

Hristow, Wladimir K.

In the introduction to the tables, the author also presents formulas of the form  $\sum \sum a_{\mu\nu} \phi^\mu \psi^\nu$ , which are true power series with constant coefficients based on a specified origin. It is pointed out that series of this type are better suited for high-speed electronic computers than those of type (\*). The latter, however, are superior for desk calculator computation (provided tables such as these are available), since far less terms are involved.

B. Chovitz (Washington, D.C.).

\*Tables for Machine Computation of the Gaussian Coordinates, the Meridian Convergence and the Scale on the Basis of the Geographic Coordinates of the F.N. Krassowsky Ellipsoid for all Latitudes.

3(2)

PHASE I BOOK EXPLOITATION

SOV/1630

Khristov, Vladimir K.

Koordinaty Gaussa-Kryugera na ellipsoide vrashcheniya. Perevod s bolgarskogo  
(Gauss-Krüger Coordinates on a Revolution Ellipsoid. Translated from the  
Bulgarian) Moscow, Geodezizdat, 1957. 261 p. 2,500 copies printed.

Translator: O.B. Sheynin; Ed.: V.P. Morozov; Tech. Ed.: V.V. Romanova;  
Ed. of Publishing House: L.M. Komar'kova

PURPOSE: This book is intended for geodesists and cartographers as well as for  
students in advanced courses in geodetic vuzes.

COVERAGE: The contents are a translation of a book by the Bulgarian geodesist,  
V.K. Khristov. Professor Khristov has ~~heretofore~~ consolidated all articles and  
papers previously published by him on the Gauss-Krüger projection. The entire  
book is devoted to formulas, relationships, and solutions of problems and ques-  
tions which may be encountered by a geodesist or cartographer in using the plane  
rectangular coordinates in the conformal Gauss projection. The Forward includes  
a short history of the Gauss-Krüger System while the Appendix contains a list of

Card 1/5

Gauss-Krüger Coordinates (Cont.)

80V/1630

of German language articles by the author which are summarized in this work.  
There are 25 figures. There are no references given.

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Gauss-Krüger Coordinates (Cont.)

SOV/1630

8. The Power Series for  $\cos \varphi$ ,  $\frac{1}{\cos \varphi}$ ,  $t$ ,  $\eta^2$ ,  $N$ ,  $\frac{1}{N}$ ,  $\varphi$ ,  $B$  and  $q$  With  
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Gauss-Krüger Coordinates (Cont.)

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AVAILABLE: Library of Congress (QA 556.K487)

Card 5/5

MM/gap  
5-8-59

KHRISTOV, VLADIMIR K.

"Tabitsi za obratnata geodezicheska zadacha s geografski koordinati  
za izchislenie sus smetachna mashina vurkhu elipsoida na F. N.  
Krasovski za vsichki shirochini."

Sofiia, Bulgaria, Bulgarska akademiia na naukite, 1958. 111p.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, No. 2,  
February, 1960. Uncl.

KHRISTOV, V.

Transformation between two referent ellipsoids for Gauss coordinates. III. p. 71.

Priroda I Znanie, Sofia Bulgaria, Vol. 1, 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 10, Oct. 1959.  
Uncl.

KHRISTOV, V.

Transformation between two referent ellipsoids for geographical coordinates. 1. p. 5

Priroda I Znanie, Sofia Bulgaria, Vol. 1, 1958

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 10, Oct. 1959.  
Uncl.

**AUTHOR:** ~~Christov, Vl. K.~~, Corresponding Member of the Bulgarian Academy of Sciences 6-58-3-11/16

**TITLE:** Classical and Modern Methods for Evaluating the Accuracy of Observation (Klassicheskiye i sovremennyye metody otsenki tochnosti nablyudeniy)

**PERIODICAL:** Geodeziya i Kartografiya, 1958, Nr 3, pp. 51-65 (USSR)

**ABSTRACT:** The author is of opinion that the classical theory needs to be examined. Here he poses the problem of a critical revision of the present practice in the evaluation of the accuracy of measurement and gives some considerations in this connection. For this purpose he gives some conceptions and definitions of the probability theory and of statistics. The usual mathematical apparatus and the theses of the method of smallest squares are used here. - It is pointed out that it is very important that the observed quantity (i. e. the possible result of measurement) is a random quantity. In the case of a symmetrical

Card 1/3

Classical and Modern Methods for Evaluating  
the Accuracy of Observation

6-58-3-11/16

distribution and in the absence of a systematic influence the average value of  $a$  (the priori mean value of the quantity  $X$ ) coincides with the most probable value and will be its true value, whereas the standard  $\sigma$  (the square root of the dispersion) coincides with the so-called mean error of the individual observations (but obtained from a large number of observations). It is further emphasized that the opinion spread everywhere that the most probable value of the sought quantity  $a$  is allegedly equal to the arithmetic mean of  $x$  is undue and false. In reality the true value  $a$  is a constant quantity and cannot have any distribution. The true  $a$ -value is the possible arithmetic mean of  $X$  which is a random quantity in the absence of systematic errors, i. e. also is a variable quantity and possesses its most probable value. - The author derives the formula (105) for evaluating the accuracy of the result. The so-called interval of confidence  $(x - tm_x)$  to  $(x + tm_x)$  introduced by the author occurs in

Card 2/3

Classical and Modern Methods for Evaluating  
the Accuracy of Observation

6-58-3-11/16

this formula. The corresponding probability is called the probability of confidence.  $m$  denotes the number of unknown quantities,  $t$  - the distribution. The classical formula for the given case is (106). Both formulae (105) and (106) are compared. The difference at the right side of the formulae represents the error of the classical formula (106). When  $n$  is very high formula (105) goes over to (106). But when the number of observations is small the classical formulae must by no means be used. The difference in accuracy according to both methods is here illustrated with the aid of an example. There are 4 tables.

AVAILABLE: Library of Congress

1. Measurement--Analysis

Card 3/3

CHRISTOW, W.

SCIENCE

Periodical: GEODEZJA I KARTOGRAFIA. Vol. 7, no. 1, 1958.

CHRISTOW, W. Classical and modern methods of evaluating the precision  
of compensation by indirect observations. p. 12.

Monthly List of East European Acessions (EEAI), LC, Vol. 8, No. 3, May 1959  
Unclass.

KHRISTOV, V. K.

3(4)

PHASE I BOOK EXPLOITATION

SOV/3329

Khristov, Vladimir K., Academician

Obshchaya teoriya primenennykh v geodezii koordinat (General Theory of Coordinates Used in Geodesy) Sofiya, Izd. Bolgarskoy Akademii nauk, 1959. 254 p. (Series: Bolgarskaya Akademiya nauk. Otdeleniye matematicheskikh, fizicheskikh i tekhnicheskikh nauk. Tsentral'noy geodezicheskoy laboratorii. Trudy, no. 4) 500 copies printed.

Tech. Ed.: Y. Shangov.

PURPOSE: This is a reference book for geodesists.

COVERAGE: The book is part of a series on the Proceedings of the Central Geodetic Laboratory, Bulgarian Academy of Sciences. The general theory of coordinates is presented, and various systems of coordinates in geodesy are analyzed. This analysis leads to the conclusion that the universal acceptance of Gaussian coordinates along with geographical coordinates, is well founded.

Card 1/6

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722330008-6

General Theory (Cont.)

It may be expected that in the near future Gaussian coordinates will entirely supplant all other systems of coordinates in the reference ellipsoid.

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Card 2/6

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AVAILABLE: Library of Congress (QB280.B8A2)

Card 6/6

TM/os  
4-1-60

KHRISTOV, Vladimir K. [Hristov, W.K.]

Problems of the appropriated division of the page of world map of  
1: 2,500,000th, of its nomenclature and projection. Acta techn Hung  
30 no.1/2:99-110 '60. (EEAI 10:1)

1. Ordentliches Mitglied der Bulgarischen Akademie der Wissenschaften  
(World maps)

21922

S/006/61/000/006/001/002  
D054/D113

16.6100 (1329,1103)

AUTHOR: Khristov, V.K. (Bulgaria)

TITLE: Confidence intervals and confidence probabilities of adjusted quantities obtained by the method of least squares

PERIODICAL: Geodeziya i kartografiya, no. 6, 1961, 70-77

TEXT: In this article the author demonstrated how the confidence intervals ( $\xi$ ) and confidence probabilities (P) of adjusted quantities were obtained by the method of least squares, and how the application of this method allowed the connection between these confidences, in a very general case, to be shown. He adapted some formulae from his previous article "Klassicheskiye i sovremennyye metody otsenki tochnosti nablyudeniy" ("Classical and contemporary methods of estimating the accuracy of observations"), published in "Geodeziya i kartografiya", 1958, No. 3. These formulae are designated, in each case, by the accompanying number, 1 - e.g., 1(70). Any adjustment by the least squares method can result from adjusting intermediate observations. The author discussed the case of equations with two unknowns with a consequent generalization of derivations for a larger number of unknowns.

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Confidence intervals and confidence...

The equations given were as follows:

$$\left. \begin{array}{l} a_1x + b_1y = l_1 + v_1; \\ a_2x + b_2y = l_2 + v_2; \\ \dots \dots \dots \\ a_nx + b_ny = l_n + v_n; \end{array} \right\} \begin{array}{l} \frac{\sigma^2}{p_1} \\ \frac{\sigma^2}{p_2} \\ \dots \\ \frac{\sigma^2}{p_n} \end{array} \quad (1)$$

X

In and beyond formula (1), the following symbols are introduced:  $a_1, b_1$  are known numbers;  $x, y$  - adjusted values;  $\alpha, \beta$  - estimation of unknown values;  $l_1$  - results of observations without systematic errors and corresponding to the Moivre-Laplace-Gauss normal distribution law;  $l_1^0$  - their actual values

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Confidence intervals and confidence...

with the dispersions  $\frac{\sigma^2}{p_i}$  (where  $p_i$  is the weights of observations considered as known and  $\sigma$  is an unknown standard corresponding to the weight  $p = 1$ ); and  $v_i$  - corrections to the results of observations determined according to the condition

$$\sum p_i v_i^2 = [p v v] = \min. \quad (2)$$

Estimation of the accuracy of the function of the adjusted values and of the adjusted quantities observed. Applying the Taylor series to the formula

$$f = f(x, y), \quad (3)$$

the following formula is expressed as a result of the actual values of the unknown quantities

$$\delta f = f_1 \delta x + f_2 \delta y, \quad (5)$$

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Confidence intervals and confidence...

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where  $\delta x$ ,  $\delta y$ ,  $\delta f$  are the actual errors. By orthogonally converting the  $x$ ,  $y$  quantities in the equation 1(68) into  $x'$ ,  $y'$  quantities, the following formula was obtained

$$\left. \begin{aligned} x &= \cos \varphi x' - \sin \varphi y' \\ y &= \sin \varphi x' + \cos \varphi y' \end{aligned} \right\} \quad (6)$$

By substituting the  $\delta x$ ,  $\delta y$  quantities, determined by the formula (6) in the expression (5), the following equation was obtained

$$\delta f = (f_1 \cos \varphi + f_2 \sin \varphi) \delta x' + (-f_1 \sin \varphi + f_2 \cos \varphi) \delta y' \quad (11)$$

According to the formula 1(75), we obtain

$$\left. \begin{aligned} [pa'a']x' &= [pa'l] \\ [pb'b']y' &= [pb'l] \end{aligned} \right\} \quad (12)$$

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Confidence intervals and confidence...

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Therefore the dispersions of  $x'$ ,  $y'$  quantities, with  $\sigma_{x'}$  and  $\sigma_{y'}$  errors would be

$$\left. \begin{aligned} D(x') &= \frac{\sigma^2}{[pa'a']} \\ D(y') &= \frac{\sigma^2}{[pb'b']} \end{aligned} \right\} \quad (13)$$

Consequently, for the dispersion (11), the following formula was obtained

$$D(\delta f) = \left( \frac{(f_1 \cos \varphi + f_2 \sin \varphi)^2}{[pa'a']} + \frac{(-f_1 \sin \varphi + f_2 \cos \varphi)^2}{[pb'b']} \right) \sigma^2. \quad (14)$$

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Confidence intervals and confidence...

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D054/D113

Therefore the quantity

$$\begin{aligned} & \left( \frac{(f_1 \cos \varphi + f_2 \sin \varphi)^2}{[pa'a']} + \frac{(-f_1 \sin \varphi + f_2 \cos \varphi)^2}{[pb'b']} \right)^{1/2} = \\ & = \sqrt{[pa'a'] [pb'b']} \delta f: (f_1^2 ([pa'a'] \sin^2 \varphi + [pb'b'] \cos^2 \varphi) + \\ & + 2f_1 f_2 (-[pa'a'] \sin \varphi \cos \varphi + [pb'b'] \sin \varphi \cos \varphi) + f_2^2 ([pa'a'] \cos^2 \varphi + \\ & + [pb'b'] \sin^2 \varphi))^{1/2}. \end{aligned} \quad (15)$$

has the dispersion  $\sigma^2$ . Mean error of the weight unit and the theoretical standard: The quantity [pvv] could be expressed as a sum of squares of normal quantities (0,  $\sigma$ ) resulting from the formula

$$\mu = \sqrt{\frac{[pvv]}{k}} \quad (40)$$

where  $\mu$  is the mean error of the weight unit. As the quantity

$$\frac{\sqrt{k} \mu}{\sigma} = \sqrt{\frac{[pvv]}{\sigma^2}} \quad (41)$$

is a square root of the sum of k squares of normal quantities (0, 1)  
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Confidence intervals and confidence...

having a so-called  $\chi^2$  distribution

$$P(x, k) = \frac{1}{2^{\frac{k-2}{2}} \Gamma\left(\frac{k}{2}\right)} x^{k-1} e^{-\frac{x^2}{2}} \quad (42)$$

Therefore the probability

$$P\left(x_1 < \frac{\sqrt{k} \mu}{\sigma} < x_2\right) = \int_{x_1}^{x_2} P(x, k) dx \quad (43)$$

can be expressed as

$$\begin{aligned} P(\mu - e_\mu < \sigma < \mu + e_\mu) &= P(\mu + e_\mu > \sigma > \mu - e_\mu) = \\ &= P\left(\frac{1}{\mu + e_\mu} < \frac{1}{\sigma} < \frac{1}{\mu - e_\mu}\right) = P\left(\frac{\sqrt{k} \mu}{\mu + e_\mu} < \frac{\sqrt{k} \mu}{\sigma} < \frac{\sqrt{k} \mu}{\mu - e_\mu}\right). \end{aligned} \quad (44)$$

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Confidence intervals and confidence...

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Supposing that

$$\left. \begin{aligned} x_1 &= \frac{\sqrt{k} \mu}{\mu + e_{\mu}} = \frac{\sqrt{k}}{1 + \frac{e_{\mu}}{\mu}} = \frac{k}{1+q} \\ x_2 &= \frac{\sqrt{k} \mu}{\mu - e_{\mu}} = \frac{\sqrt{k}}{1 - \frac{e_{\mu}}{\mu}} = \frac{k}{1-q} \end{aligned} \right\} \quad (45)$$

then

$$P(\mu - e_{\mu} < \sigma < \mu + e_{\mu}) = \int_{x_1}^{x_2} P(x, k) dx = L(q, k). \quad (46)$$

Thus, the unknown standard  $\sigma \approx \mu$ . If the confidence probability were given a certain definite value, e.g.  $P = 0.95$ , then  $L(q, k) = 0.95$  could be expressed as

$$q = q(k). \quad (47)$$

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Confidence intervals and confidence...

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If the quantity is tabulated for an excessive number of  $k$  observations, then, according to (45), we obtain

$$e_{\mu} = q\mu. \quad (48)$$

and

$$\sigma = \mu \pm e_{\mu}; (P=0,95). \quad (49)$$

Thus, a certain value  $f$  for the unknown quantity  $f^0$  to be determined could be obtained with a mean  $1/n$  error by the method of least squares. In the same way, the mean  $\mu$  error for the weight unit could be found for the unknown  $\sigma$  standard. The author gave 3 examples showing the importance of the application of confidence intervals and confidence probabilities to the adjustment of quantities by the method of least squares. There are 2 tables.

Card 9/9

S/O44/62/000/012/030/049  
A060/A000

AUTHOR: Khristov, Vladimir

TITLE: Standard confidence levels and the corresponding confidence intervals

PERIODICAL: Referativnyy zhurnal, Matematika, no. 12, 1962, 27, abstract 12V140  
(Compte rendu 1-er sympos. internat. calculs. géod. Cracovie, 1959, Cracow, 1961, 167 - 170. Discuss., 170 - 176, German)

TEXT: If  $f$  is the final result of balancing according to the method of least squares,  $f_0$  is the actual value of the measured quantity,  $k$  is the number of excess measurements (degrees of freedom,  $v$  are the remainders after the balancing,  $p$  are the weights,  $\mu = \sqrt{\frac{[pvv]}{k}}$ , then the result is usually represented in the form  $f_0 = f \pm \mu$ . For  $k = 1$  this may be understood to mean that with probability  $P = 0.683$  the actual value  $f_0$  of the measured quantity is contained in the interval between  $f - \mu$  and  $f + \mu$ . Proceeding from Student's  $t$ -distribution it may be considered that  $f = f \pm t\mu$  where  $t$  at a fixed confidence level  $P = C$

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Standard confidence levels and the...

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A060/A000

is a function of the number of degrees of freedom  $k$ . Proceeding from Pierson's X-distribution for the actual mean effort  $\mu$  an analogous relation  $\sigma = \mu \pm q\mu$  is derived, where  $q$  for a fixed confidence level  $P = C$  is a function of the number of degrees of freedom  $k$ . It is proposed to introduce standard confidence levels  $P = 0.95$  and  $P = 0.683$ . For these probabilities and 35 values of  $k$ , the values of  $t$  and  $q$  are cited. Eight authors take part in the discussion.

A. Kh. Zaslavskiy

[Abstracter's note: Complete translation]

Card 2/2

KHRISTOV, Vladimir K., akad.

Practical aspects of the third book of the "Bulletin of the Central Laboratory of Geodesy." Izv geod BAN no.3:7 '62.

1. Direktor na Tsentralnata laboratoria po geodeziia, chlen na Redaktsionnata kolegiia i otgovoren redaktor, "Izvestiia na Tsentralnata laboratoria po geodeziia."

KHRISTOV, Vladimir K., akad.

Transformations of the Gauss, isometric transverse, isometric conic, stereographic, the Seldner, nonisometric transverse, nonisometric conic, azimuthal (local) coordinates in the Gauss uniform coordinates. Izv geod BAN no.3:7-50 '62.

1. Chlen na Redaktsionnata kolegia i otgovoren redaktor, "Izvestiia na Tsentralnata laboratoria po geodeziia."

42819

S/169/62/000/010/031/071  
D228/D307

916160

AUTHOR:

Khristov, Vl.K.

TITLE:

Establishing the point to which the gravity value determined by a reverse pendulum pertains

PERIODICAL:

Referativnyy zhurnal, Geofizika, no. 10, 1962, 32, abstract 10A205 (Izv. Tsentr. labor. geod. B"lg. AN, 3, 1962, 51-58 (Bul.; summaries in Rus. and Ger.))

TEXT:

The oscillation of a reverse pendulum is considered, with allowance for the vertical gravity gradient  $k$ . If the oscillation amplitude  $\varphi$  is infinitely small, it may be reckoned that the measured value of  $g$  pertains to the point lying above the center of oscillation (considered in a direction towards the point of suspension) at  $\delta = (2J/I)\ell$ ; where  $J$  is the moment of inertia of the pendulum relative to the pivot axis,  $I$  is the same in relation to the pivot axis, and  $\ell$  is the pendulum's reduced length. The corresponding period correction for the oscillation center reduction

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Establishing the point ...

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D228/D307

equals:  $\delta T = - (1/\pi^2)k(J/I)T^3$ . A further correction for the infinitely small amplitude reduction comprises the quantity:  $\delta T = - (3/16\pi^2)k [1 - (2J/I)] T^3 \varphi^2$ , where  $\varphi$  is expressed in radians.

[Abstracter's note: Complete translation]

Card 2/2

KHRISTOV, Vladimir K., akad.

The higher geodesy in the Soviet Union and its reflection in  
the geodesy of Bulgaria. Spisaniie BAN 7 no.4:44-49 '62.

KHRISTOV, Vladimir K., akad. prof.; POSTNIKOVA [translator]; GANCHEV, G.  
[translator]

Determination of geodesic geographical coordinates and ellipsoid heights by means of observation from artificial satellites.  
Izv geod BAN no.4:9-33 '63.

1. Chlen na Redaktsionnata kolegiia, otgovoren redaktor,  
"Izvestiia na Tsentralnata laboratoriiia po geodeziia"  
(for Khristov).

KHRISTOV, Vladimir K., akad. prof.; POSTNIKOVA [translator]; GANCHEV, G.  
[translator].

Notes on the leveling of the continental first-order triangulation  
under the basis, Laplace, and coordinate conditions. Izv geod  
BAN no.4:35-43 '63.

ACC NR: AT7001736

(A)

SOURCE CODE: BU/2502/66/007/000/0005/0019

AUTHOR: Hristov, V. K. -- Khristov, V. K. (Professor; Academician, Member of Bulgarian Academy of Sciences)

ORG: none

TITLE: Determination of the geodesic geographic coordinates and of the ellipsoidal heights on the basis of observations of distances to satellites

SOURCE: Bulgarska akademiya na naukite. Tsentralna laboratoriya po geodeziya. Izvestiya, v. 7, 1966, 5-19.

TOPIC TAGS: geodesy, geodetic survey, artificial satellite observation

ABSTRACT: The Earth's geodesic geographic coordinates and the ellipsoidal heights are determined from distances measured from satellites. Initially, three coordinate systems were used in the measurements: a geocentric system in which the orbital coordinates  $\delta$ ,  $\alpha$ , and  $\Delta$  of the satellite are expressed; a reference ellipsoidal system in which the geodesic geographic coordinates and heights  $\phi$ ,  $\lambda$ , and  $H$  of the triangular points (topocenters) are expressed and which shows the displacements  $dx_0$ ,  $dy_0$ , and  $dz_0$  of the reference ellipsoid with respect to the Earth's common ellipsoid; and a topocentric system in which the observed distances  $\Delta'$  to the satellite are expressed. A relationship between the following quantities is derived:

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ACC NR: AT7001736

the observed distance to the satellite, the satellite orbital data, the empirical corrections for the satellite orbital data, corrections of the ellipsoidal geographical coordinates and of the ellipsoidal heights of the topocentric points, and displacement of the reference ellipsoid relative to the Earth's ellipsoid. The relationship obtained yields the observational equations from which the normal equations for the unknown variables are constructed. Orig. art. has: 66 formulas and 1 figure.

SUB CODE: 08/ SUBM DATE: none

22/

Cord 2/2

Veterinary Medicine

BULGARIA

CHENCHEV, Prof. Iv., VIZPB; NEDYALKOV, Dr. St., VII; ~~KHRISTOV, Dr. Y., VII;~~  
DUMANOV, Dr. Y., VIZPB; BODUROVA, Dr. Tsv., VII; SAVOV, Dr. At., IBPRNB

"Properties of the Preparation Biozan T"

Sofia, Veterinarna Sbirka, Vol 63, No 8, 1966, pp 7-9

Abstract: Preparations Biozan T and Biozan P to be administered to newborn calves and pigs, respectively, for the prevention of intestinal and other diseases have been developed. Biozan T contains gamma-globulins active against *S. enteritidis*, *S. typhi murium*, *P. bulbacepticus*, *E. coli* (09, 078, and 0117), and the virus of Aujeszky's disease and Biozan P gamma-globulins active against *S. cholerae suis*, *S. typhi murium*, *E. coli* (hemolytic and non-hemolytic), and the virus of Aujeszky's disease. Furthermore, vitamin C, terramycin, biomycin, and penicillin have been added to both preparations. Tests carried out on Biozan T indicated that it was non-toxic to white mice, had a bacteriostatic effect on *Staph. aureus* 209 and *E. coli* 09, and did not deteriorate with respect to antibiotic activity on being stored at 4° for 5 months. On being administered to calves 3-16 days old, Biozan T was very effective in stimulating growth. While the calves did not develop diarrhea, a definite conclusion in regard to the effect of Biozan T in producing immunity is not yet possible at this stage. Table, no references.

1/1

CHENOV, V. G.; BURKIN, N. M.; KHRISTOV, Y. V.; KHRISTOVA, M. P.  
APPROVED FOR RELEASE: 09/17/2001 : CIA-RDP86-00513R000722330008-6

Surteke intrusion of alkali rocks (central Tien Shan).  
Zap. Kir. otd. Vses. min. ob-va no.5:39-49 '65.

(MIRA 18:7)

KHRISTOV, Ye.V.

Find of Tournai sediments in the western part of the Kok-Shaal  
range system. Mat. po geol. Tian'-Shania no.4:106-109 '64.  
(MIRA 17:10)

COUNTRY Bulgaria  
 CATEGORY Plant Diseases. Diseases of Cultivated Plants. 0  
 ABS. JOUR. REF ZHUR. BIOLOGIYA, NO. 4, 1959,  
 AUTHOR Khristova No. 15961  
 INST TITLE Sofia Institute of Plant Protection,  
 Diseases Brought into Bulgaria on Lemons,  
 Sweet Oranges, Mandarins, and Bananas.  
 ORIG. PUB. : Byul. rastit. zashchita, 1957, 6, No.3, 50-58  
 ABSTRACT : The decay of sweet oranges and mandarins at  
 the time of transportation and storage was  
 caused by *Alternaria citri*, *Penicillium ital-*  
*icum*, *P. digitatum*, *Fleospora herbarum*, *Glio-*  
*cladium roseum*, *Colletotrichum gloeosporioides*, and *Aspergillus niger*; lemons were in-  
 fected with *Rhizoctonia solani* and *Botrytis*  
*cinerea*; bananas with *Gloeosporium musarium*.  
 Experiments with pure cultures demonstrated  
 that *A. citri*, *P. italicum*, and *B. cinerea*

CARD:

1/2

KHRISTOVA, A.; TSANEV, R.; MARKOV, G.

Studies on the wound process complicated with staphylococcus infection in totally X-ray irradiated mice. p. 203.

Bulgarska akademija na naukite. Institut po biologija "Metodi Popov."  
IZVESTIA, BULLETIN. Sofia, Bulgaria, Vol. 9, 1958

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 12,  
December 1959  
Uncl.

KHRISTOVA, A.; STOICHEV, N.

"Portable combined laboratory apparatus."

p. 23 (Ratsionalizatsila) Vol. 7, no. 5, May 1957  
Sofia, Bulgaria

SO: Monthly Index of East European Accessions (EEAI) LC Vol. 7, no. 4,  
April 1958

DIMITROV, M.; KHRISTOVA, A.

Roentgenotherapy of amphotosis. Stomatologia, Sofia no.5:259-265 1954.

1. Glaven lekar na Sofiiskia okrushen onkologichen dispanser (for Dimitrov) 2. Glaven lekar na Sofiiskata okrushna stomatologichna poliklinika (for Khristova)

(PERIODONTIUM, diseases,  
ther., x-ray)

(RADIOTHERAPY, in various diseases,  
periodontitis)

KHRISTOVA, Aleksandra

Carotene content in the most widespread varieties of  
pepper in Bulgaria, used for making ground red pepper.  
Selakostop nauka & no.5/6:577-581 '63.

KHRISTOVA, Aleksandra; POPOVA, Dobra

Studies on the quality of fruit of some heterosis peppers.  
Selskostop nauka 2 no.7:789-794 '63.

KHRISTOVA, A.S., podpolkovnik med.sluzhby., STOICHEV, N.H.

Portable sanitation and epidemiological kit: Voen.med.zhur.  
no.8:80-83 Ag '56 (MIRA 12:1)  
(BACTERIOLOGY, MEDICAL--EQUIPMENT AND SUPPLIES)

KHRISTOVA, A.S.; GYLYBOV, K.S.

Immunogenesis in anticholera vaccination with standard and shortened intervals between injections; preliminary report. Zhur.mikrobiol. epid. i immun. 28 no.4:73-76 Ap '57. (MLRA 10:10)

1. Iz Nauchno-issledovatel'skogo voyenno-meditsinskogo instituta (Soviya)

(CHOLERA, immunol.

eff. of ordinary & shortened intervals between vaccine injections on immun.)

TSANEV, R.G.; MARKOV, G.G.; KHRISTOVA, A.S.

Disorders of vlnerary processes after total-body X-ray irradiation.  
Med.rad. 6 no.4:48-55 '61. (MIRA 14:12)  
(X-RAYS—PHYSIOLOGICAL EFFECT) (WOUNDS)

7 of 87 КРИСТИОВА, Е.

KRISTOVA (ELEONORA). Мозайката по Цвеклото в България. [Beet mosaic in Bulgaria.]—*Rev. Inst. Rech. sci. Minist. Agric., Sofia*, 18, 1, pp. 89-100, 4 figs., 1950. [French summary.]

In Bulgaria beet mosaic is prevalent in the beet-producing districts of Gorna Oryakhovitsa, Rusen, Shumen, and Sofia, causing serious losses especially to the seed crops, which are often reduced by 50 per cent. The symptoms, host range,

properties of the virus, and the mode of transmission resemble those described by Hoggan [*R.A.M.*, 12, p. 674] and Pound [*ibid.*, 27, p. 270].

The beet mosaic virus was detected in a number of hosts including chard [*ibid.*, 28, p. 431], *Beta vulgaris* subsp. *crassa*, *B. procumbens*, *B. vulgaris* var. *rubra*, *Amaranthus retroflexus*, *A. albus*, *A. monstrosus*, *A. paniculatus*, *A. albus* var. *roseus*, *A. aureus*, *Atriplex hortensis* and its var. *atropurpurea*, *Chenopodium botrys*, and *C. ambrosioides*. The susceptible beet varieties include Peragia Runkenrube, Diutches, Bares Teutonia, Mamutka Cervena, Chotovice zelum, Eckendorf Yellow, Sakharose, Colosco, Kirshes-Colos, local sugar beet, sugar beet Nos. 572, 511, 4813/64, 5852/102, 512, 106, Enzhe original Nos. 128 and 501, Gol-1, Gol-2, and Gol-3; those of spinach Victoria, Matador, Universal, and King of Denmark.

The tolerance of the virus to dilution was 1 in 400, thermal death point 45° to 50° C., and longevity *in vitro* (at 18° to 20°) 24 to 30 hours.

Both *Aphis fabae* and *Myzus persicae* were found to be effective vectors. The incubation period was 11 to 14 days.

New crops should be planted at least 1,000 to 2,000 m. away from seed crops.

KHRISTOVA, E.

Khristova, E. Preventing the rotting of sugar-beet rootlets. p.19.  
Our agricultural products at the Plovdiv Fair. p.20.

Vol. 10, no. 10, Oct. 1955 KOOPERATIVNO ZEMEDELIE Sofiya, Bulgaria

SO: Monthly List of East European Accessions, (MEAL), LC, Vol. 5, No. 2  
February, 1956

KHRISTOVA, E.

BULGARIA/General and Specialized Zoology - Insects.

P.

Abs Jour : Ref Zhur - Biol., No 9, 1958, 40135

Author : Khristova, Ye.

Inst :

Title : Aphids on Melon Fields and Experiments in Controlling Them.

Orig Pub : Ovoshcharstvo i gradinarstvo.

Abstract : Melon and cucumber beds were greatly infected with the aphid *Aphis gossypii*, which had seventeen generations a year. A treatment of melon seeds prior to sowing with vophatox, parathion and systox, carried out as an experiment, did not produce any effect. Best results were obtained from dusting the plants with vophatox (20 kg/hectare) and spraying with parathion (0.04%); within 8 days after treatment, the number of the aphids decreased 50 times, while in the control it increased  $6\frac{1}{2}$  times. -- V.M. Popovskaya.

Card 1/1

Country : BULGARIA  
Category : Plant Diseases, Diseases of Cultivated Plants. 0  
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Abs Jour : RZhBiol., No 6, 1959, No 25210

Author : Khristova, E.

Inst : Ministry of Agriculture and Forests; Institute for the Protection of Plants, Sofia.

Title : Effect of Agricultural Engineering on Root Rot of the Beet.

Orig Pub : Nauchni tr. M-vo zemed. i gorite. Ser. rasteniyev"dstvo, 1957, 2, No. 6, 29-40

Abstract : Experiments for the protection of sugar beet and mangels from root rot were conducted by the Institute for the Protection of Plants in Sofia. The basic agricultural engineering methods are: utilization of cereal crops as a predecessor; use of potassium and phosphorus fertilizers and manure, whereupon in the

Card : 1/3

Country : BULGARIA  
Category : Plant Diseases. Diseases of Cultivated Plants. 0

Abs Jour : RZhBiol., No 6, 1959, No 25210

PALAVEEV, T.; KHRISTOVA, El.; DINCHEV, D.; TAKOVA, T.; BIKS, St.

Introduction of boron fertilization in Bulgaria. Izv Inst  
"Nikola Pushkarov" 4:89-131 '62.

KHRISTOVA, G.K.

Electrophoretic and immunobiological characteristics of the antitoxic  
serums purified by various methods. Trudy epidemiol mikrobiol 8:  
193-201 '61 [publ.'62].

1. Chlen Redaktsionnoy kollegii, "Trudy Nauchno-issledovatel'-  
skogo instituta epidemiologii i mikrobiologii."

PANGAROV, N.; NENOV, I.; KHRISTOVA, I.

Predominant orientation in the copper and nickel electrolytic precipitation. Izv Inst fiz khim 3: 133-140 '63.

1. Institut po fizikokhimiia pri Bulgarskata akademiia na naukite.

KHRISTOVA, I.

Utilization of complement from human serum in Wassermann reaction. Suvrem. med. Sofia 8 no.5:63-67 1957.

1. Iz Nauchnoissledovatel'skii institut po khematologiya i krvoprelivane (Nauchen rukovoditel: An. Anastasov).

(WASSERMANN REACTION,

use of complement from human serum (Bul))

KHRESTOVA, IG.

AGRICULTURE

Periodical KOOPERATIVNO ZEMEDELIE. No. 11, Nov. 1958.

KHRESTOVA, IG. Necessity of mechanizing the harvesting of maize and sugar beets. p. 32.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 3, March, 1959. Uncl.

KHRISTOVA, IU.

KHIRSTOVA, IU. Some results from mechanizing the work on cooperative farms.  
p. 7 Vol. 7 no. 10 Oct. 1956. MASHINIZIRANO ZEMEDELIE. Sofia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6 No. 4 April 1957

KHRISTOVA, Ivanka, inzh., sutrudnik

Interdepartmental control of measures and measuring instruments in industrial enterprises. Ratsionalizatsiia 13 no.9:36-38'63.

1. Institut po standartizatsiia, merki i izmeritelni uredi.

KHAMPARTSUMIAN, K.; KHRISTOVA, I.

Adsorption of chlorine ions on etched aluminum electrodes,  
and their influence on the formation of an oxide layer.

Izv Inst fiz khim 4:141-146 '64.

1. Institute of Physical Chemistry of the Bulgarian Academy  
of Sciences.

BULGARIA / General and Specialized Zoology. Insects. F

Abs Jour: Ref Zhur-Biol., No 2, 1958, 6771.

Author : Khristova, K.

Inst : Not given.

Title : The Alfalfa Contarinia Medicaginis and Its Control.

Orig Pub: Byul. rastitelna zashchita, 1954, 3, Nol, 67-69.

Abstract: No abstract.

Card 1/1

TEMKOV, Iv.; KHRISTOVA, L.

Pyrogenic and therapeutic effect of a new Bulgarian vaccine. Suvrem. med., Sofia 8 no.5:9-17 1957.

1. Iz katedrata po psikhiaatria pri VMI--Sofia (Zav. katedrata: prof. G. Uzunov)

(ALCALIGENES,

faecalis, prep. of pyrogen used in fever ther. (Bul))

(FEVER THERAPY,

prep. of pyrogen from Alcaligenes faecalis (Bul))

(PYROGENS, preparation of,

from Alcaligenes faecalis, for fever ther. (Bul))

KHRISTOVA, L.; IOTOV, M.; BERBERIAN, M.; Studenti ot krushoka po pediatria  
~~s uchastieto na T.Ianeva i L.Basheva-Staneva, rukovoditeli~~

Rheumatism in school children. Suvrem. med., Sofia 5 no.7:31-35  
1954.

1. Iz Katedrata po detski bolesti pri Med. akademiia V.Chervekov,  
Sofia (zav. prof. L.Rachev)  
(RHEUTATISM, in infant and child,  
school child.)

VASILEV, At.; BOIADZHOV, Iv.; TSANKOV, Khr.; KHRISTOVA, L.

Influence of trioxan and the butadiene-styrol and natural caoutchouc on their radiation stability. Kozhi Sofia 3 no.2:7-9 '62.

1. Nauchnoissledovatel'ski institut po khimicheska promishlenost.

TIAGUNENKO, IU.; PAPARKOVA, K.; KHRISTOVA, M.

Comparative studies on antibiotic sensitivity of cultures isolated from urine in 1956, 1957 and 1958. Suvrem med., Sofia no.11:88-98 '60.

1. Iz Katedrata po mikrobiologiya i virusologiya pri ISUL (Rukov. na katedrata prof. D.Khadzhidimova)  
(ANTIBIOTICS pharmacol)  
(URINE microbiol)

PETKOV, P.; KHRISTOVA, M.

Barre-Masson disease. Khirurgia (Sofia) 16 no.4:371-373 '63.

1. Obedinena gradska bolnitsa - Biala Slatina. Gl. lekar:  
P. Petkov.

(GLOMANGIOMA) (FINGERS)

KHRISTOVA, M. B.

Bulgaria

No degree listed

Okrug Dermato-Venerological Dispensary (Dermato-ven-  
erologichen dispanser), Ruse; Chief physician: V.  
GORANOV.

Sofia, Dermatologiya i Venerologiya, supplement of  
Suvremenna Meditsina, No 1, 1962, pp 23-27.

"Dermatophytic Flora in the Ruse Okrug"

BUROV, V.G.; PURKIN, M.M.; KHRISTOV, Ye.V.; KHRISTOVA, M.P.

Surteke intrusion of alkali rocks (central Tien Shan).

Zap. Kir. otd. Vses. min. ob-va no.5:39-49 '65.

(MIRA 18:7)

MOSHTEV, R.; BUDEVSKI, E.; KHRISTOVA, N.

Corrosion of iron in the presence of nitrate ions. Izv Inst  
fiz khim 2:145-164 '62.